Rebecca J. Dulin
Senior Counsel

Duke Energy
1201 Main Street
Capital Center Building
Suite 1180
Columbia, SC 29201

o: 803.988.7130
f: 803.988.7123
Rebecca.Dulin@duke-energy.com

June 29, 2017

VIA ELECTRONIC FILING

The Honorable Jocelyn G. Boyd
Chief Clerk/Administrator
Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia, South Carolina 29210

Re: **Duke Energy Progress, LLC – Monthly Power Plant Performance Report**
Docket No. 2006-224-E

Dear Mrs. Boyd:

Pursuant to the Commission's Orders in Docket No. 1977-354-E, enclosed for filing is the Monthly Power Plant Performance Report in Docket No. 2006-224-E for the month of May 2017.

Should you have any questions regarding this matter, please do not hesitate to contact me at 803.988.7130.

Sincerely,

Rebecca J. Dulin

Enclosure

cc: Ms. Dawn Hipp, Office of Regulatory Staff
Mr. Jeffrey M. Nelson, Office of Regulatory Staff
Ms. Shannon Bowyer Hudson, Office of Regulatory Staff
Ms. Nanette Edwards, Office of Regulatory Staff
Michael Seaman-Huynh, Office of Regulatory Staff
Ms. Heather Shirley Smith, Duke Energy
Mr. Scott Elliott, Elliott & Elliott, P.A.
Mr. Garrett Stone, Brickfield, Burchette, Ritts & Stone, PC
Mr. Gary Walsh, Walsh Consulting, LLC

Duke Energy Progress
Base Load Power Plant Performance Review Plan

Period: May, 2017

Station	Unit	Date of Outage	Duration of Outage	Scheduled / Unscheduled	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
Brunswick	1	None					
	2	None					
Harris	1	None					
Robinson	2	None					

Duke Energy Progress
Base Load Power Plant
Performance Review Plan
May 2017

Lee Energy Complex

Unit	Duration of Outage	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
1A	5/25/2017 12:46:00 AM To 5/25/2017 3:37:00 AM	Sch	5249	Gas Turbine Control System - Upgrades	Unit retired to install software security patches	
1B	5/12/2017 10:38:00 PM To 5/25/2017 5:00:00 PM	Sch	5274	General Gas Turbine Unit Inspection	Inlet and exhaust inspection and other general maintenance items	
1C	5/25/2017 12:32:00 AM To 5/25/2017 5:18:00 AM	Sch	5249	Gas Turbine Control System - Upgrades	Unit retired to install software security patches	
ST1	5/25/2017 12:36:00 AM To 5/25/2017 7:11:00 AM	Sch	4314	Steam Turbine Control System - Upgrades	Unit retired to install software security patches	

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Base Load Power Plant
Performance Review Plan
May 2017

Richmond County Station

Unit	Duration of Outage	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
8	5/5/2017 11:55:00 AM To 5/5/2017 1:45:00 PM	Sch	5041	Gas Turbine - Fuel Piping And Valves	PM3 gas sensing line broken	
8	5/7/2017 4:30:00 AM To 5/7/2017 6:24:00 AM	Sch	5041	Gas Turbine - Fuel Piping And Valves	PM3 gas sensing line broken	
8	5/7/2017 6:43:00 AM To 5/7/2017 4:54:00 PM	Unsch	1700	Feedwater Controls	U8 low IP drum level during S/U	
8	5/27/2017 9:58:00 PM To 5/28/2017 8:00:00 AM	Sch	5041	Gas Turbine - Fuel Piping And Valves	Gas leak on CAN 12 PM1	
9	4/30/2017 11:12:00 AM To 5/1/2017 12:48:00 AM	Sch	5048	Gas Fuel System with controls and instruments	Inspect Gas fuel system	
9	5/1/2017 2:04:00 AM To 5/2/2017 1:42:00 AM	Unsch	5042	Gas Turbine - Fuel Nozzles/vanes	Clogged witch hat strainers on fuel gas nozzles	
9	5/22/2017 12:09:00 AM To 5/22/2017 10:39:00 AM	Sch	5249	Gas Turbine Control System - Upgrades	Security Patch to T3000 Control System	
10	5/3/2017 1:46:00 AM To 5/3/2017 11:58:00 AM	Sch	0590	Desuperheater/Attemperator Valves	HP SH attemp TCV diaphragm rupture	
10	5/3/2017 11:58:00 AM To 5/3/2017 3:25:00 PM	Unsch	5111	Gas Turbine - Lube Oil Pumps	U10 DC lube oil press switch failure on S/U	
10	5/21/2017 11:11:00 PM To 5/22/2017 11:29:00 AM	Sch	5249	Gas Turbine Control System - Upgrades	Security Patch to T3000 Control System	
ST5	5/21/2017 11:41:00 PM To 5/22/2017 1:48:00 PM	Sch	4314	Steam Turbine Control System - Upgrades	Control software patches for virus protection.	

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Base Load Power Plant
Performance Review Plan
May 2017

Sutton Energy Complex

Unit	Duration of Outage	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
1A	5/13/2017 12:00:00 AM To 5/19/2017 11:00:00 AM	Sch	5272	Gas Turbine - Boroscope Inspection	GT boroscope inspection outage.	
1A	5/23/2017 1:37:00 AM To 5/23/2017 5:04:00 PM	Sch	5249	Gas Turbine Control System - Upgrades	Planned outage for Siemens "Wannacry" controls patch.	
1A	5/23/2017 5:25:00 PM To 5/23/2017 5:32:00 PM	Unsch	5075	Blade Path Temperature Spread	CT auto unloaded on temp spread when Bravo stage came in service.	
1A	5/23/2017 5:47:00 PM To 5/23/2017 8:38:00 PM	Unsch	5075	Blade Path Temperature Spread	CT auto unloaded on temp spread when Bravo stage came in service.	
1B	5/6/2017 12:00:00 AM To 5/12/2017 11:38:00 PM	Sch	5272	Gas Turbine - Boroscope Inspection	GT boroscope inspection outage.	
1B	5/23/2017 12:49:00 AM To 5/23/2017 6:34:00 PM	Sch	5249	Gas Turbine Control System - Upgrades	Planned outage for Siemens "Wannacry" controls patch.	
ST1	5/6/2017 12:00:00 AM To 5/17/2017 11:24:00 AM	Sch	4283	Turbine Lube Oil System Valves And Piping	Adding an orifice to the lube oil system piping.	
ST1	5/23/2017 12:20:00 AM To 5/23/2017 7:54:00 PM	Sch	4314	Steam Turbine Control System - Upgrades	Planned outage for Siemens "Wannacry" controls patch.	

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Base Load Power Plant Performance Review Plan

May 2017
Brunswick Nuclear Station

	Unit 1		Unit 2	
(A) MDC (mW)	938		932	
(B) Period Hours	744		744	
(C) Net Gen (mWh) and Capacity Factor (%)	695,902	99.72	680,538	98.14
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	10,489	1.50	1,389	0.20
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-8,519	-1.22	11,481	1.66
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	697,872	100.00%	693,408	100.00%
(K) Equivalent Availability (%)		98.50		98.56
(L) Output Factor (%)		99.72		98.14
(M) Heat Rate (BTU/NkWh)		10,430		10,736

*** Estimate**
FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

May 2017
Harris Nuclear Station

	Unit 1	
(A) MDC (mW)	928	
(B) Period Hours	744	
(C) Net Gen (mWh) and Capacity Factor (%)	709,239	102.72
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-18,807	-2.72
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	690,432	100.00%
(K) Equivalent Availability (%)		100.00
(L) Output Factor (%)		102.72
(M) Heat Rate (BTU/NkWh)		10,540

*** Estimate**
FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

May 2017
Robinson Nuclear Station

	Unit 2	
(A) MDC (mW)	741	
(B) Period Hours	744	
(C) Net Gen (mWh) and Capacity Factor (%)	566,109	102.69
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-14,805	-2.69
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	551,304	100.00%
(K) Equivalent Availability (%)		100.00
(L) Output Factor (%)		102.69
(M) Heat Rate (BTU/NkWh)		10,448

*** Estimate**
FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant
Performance Review Plan
May 2017

Lee Energy Complex

	Unit 1A	Unit 1B	Unit 1C	Unit ST1	Block Total
(A) MDC (mW)	223	222	223	379	1,047
(B) Period Hrs	744	744	744	744	744
(C) Net Generation (mWh)	118,205	65,736	120,168	201,373	505,482
(D) Capacity Factor (%)	71.25	39.80	72.43	71.41	64.89
(E) Net mWh Not Generated due to Full Scheduled Outages	636	68,013	1,063	2,495	72,207
(F) Scheduled Outages: percent of Period Hrs	0.38	41.18	0.64	0.88	9.27
(G) Net mWh Not Generated due to Partial Scheduled Outages	39,281	22,757	39,179	34,953	136,170
(H) Scheduled Derates: percent of Period Hrs	23.68	13.78	23.61	12.40	17.48
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	7,791	8,662	5,502	43,154	65,109
(N) Economic Dispatch: percent of Period Hrs	4.70	5.24	3.32	15.30	8.36
(O) Net mWh Possible in Period	165,912	165,168	165,912	281,976	778,968
(P) Equivalent Availability (%)	75.94	45.04	75.74	86.72	73.25
(Q) Output Factor (%)	71.75	69.84	72.90	72.05	71.88
(R) Heat Rate (BTU/NkWh)	9,625	10,352	9,549	3,372	7,210

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

Duke Energy Progress
Base Load Power Plant
Performance Review Plan
May 2017

Richmond County Station

	Unit 7	Unit 8	Unit ST4	Block Total
(A) MDC (mW)	189	189	175	553
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	112,369	106,896	127,219	346,484
(D) Capacity Factor (%)	79.91	76.02	97.71	84.21
(E) Net mWh Not Generated due to Full Scheduled Outages	0	2,602	0	2,602
(F) Scheduled Outages: percent of Period Hrs	0.00	1.85	0.00	0.63
(G) Net mWh Not Generated due to Partial Scheduled Outages	26,040	25,922	4,464	56,426
(H) Scheduled Derates: percent of Period Hrs	18.52	18.43	3.43	13.71
(I) Net mWh Not Generated due to Full Forced Outages	0	1,925	0	1,925
(J) Forced Outages: percent of Period Hrs	0.00	1.37	0.00	0.47
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	1,124	1,124
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.86	0.27
(M) Net mWh Not Generated due to Economic Dispatch	2,207	3,272	0	5,479
(N) Economic Dispatch: percent of Period Hrs	1.57	2.33	0.00	1.33
(O) Net mWh Possible in Period	140,616	140,616	130,200	411,432
(P) Equivalent Availability (%)	81.48	78.35	95.71	84.91
(Q) Output Factor (%)	79.91	78.55	97.71	85.15
(R) Heat Rate (BTU/NkWh)	11,371	11,310	0	7,177

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

Duke Energy Progress
Base Load Power Plant
Performance Review Plan
May 2017

Richmond County Station

	Unit 9	Unit 10	Unit ST5	Block Total
(A) MDC (mW)	214	214	248	676
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	116,626	121,466	154,928	393,020
(D) Capacity Factor (%)	73.25	76.29	83.97	78.14
(E) Net mWh Not Generated due to Full Scheduled Outages	2,418	4,815	3,501	10,734
(F) Scheduled Outages: percent of Period Hrs	1.52	3.02	1.90	2.13
(G) Net mWh Not Generated due to Partial Scheduled Outages	28,363	28,004	1,679	58,046
(H) Scheduled Derates: percent of Period Hrs	17.81	17.59	0.91	11.54
(I) Net mWh Not Generated due to Full Forced Outages	5,058	738	0	5,796
(J) Forced Outages: percent of Period Hrs	3.18	0.46	0.00	1.15
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	6,751	4,193	24,404	35,348
(N) Economic Dispatch: percent of Period Hrs	4.24	2.63	13.23	7.03
(O) Net mWh Possible in Period	159,216	159,216	184,512	502,944
(P) Equivalent Availability (%)	77.49	78.92	97.19	85.17
(Q) Output Factor (%)	79.08	79.05	85.59	81.51
(R) Heat Rate (BTU/NkWh)	11,469	11,394	0	6,925

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

Duke Energy Progress
Base Load Power Plant
Performance Review Plan
May 2017

Sutton Energy Complex

	Unit 1A	Unit 1B	Unit ST1	Block Total
(A) MDC (mW)	225	225	267	717
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	59,893	73,456	77,257	210,606
(D) Capacity Factor (%)	35.78	43.88	38.89	39.48
(E) Net mWh Not Generated due to Full Scheduled Outages	38,351	41,711	78,756	158,819
(F) Scheduled Outages: percent of Period Hrs	22.91	24.92	39.65	29.77
(G) Net mWh Not Generated due to Partial Scheduled Outages	31,382	30,165	7,926	69,473
(H) Scheduled Derates: percent of Period Hrs	18.75	18.02	3.99	13.02
(I) Net mWh Not Generated due to Full Forced Outages	667	0	0	667
(J) Forced Outages: percent of Period Hrs	0.40	0.00	0.00	0.13
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	37,106	22,067	34,709	93,883
(N) Economic Dispatch: percent of Period Hrs	22.17	13.18	17.47	17.60
(O) Net mWh Possible in Period	167,400	167,400	198,648	533,448
(P) Equivalent Availability (%)	57.94	57.06	56.36	57.08
(Q) Output Factor (%)	67.27	70.87	68.02	68.77
(R) Heat Rate (BTU/NkWh)	11,595	11,436	0	7,286

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

Duke Energy Progress
Intermediate Power Plant Performance
Review Plan
May 2017

	Mayo Station Unit 1
(A) MDC (mW)	746
(B) Period Hrs	744
(C) Net Generation (mWh)	28,625
(D) Net mWh Possible in Period	555,024
(E) Equivalent Availability (%)	79.38
(F) Output Factor (%)	39.39
(G) Capacity Factor (%)	5.16

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Intermediate Power Plant Performance
Review Plan
May 2017

Roxboro Station

		Unit 2	Unit 3	Unit 4
(A)	**MDC (mW)**	673	698	711
(B)	**Period Hrs**	744	744	744
(C)	**Net Generation (mWh)**	86,763	108,010	-646
(D)	**Net mWh Possible in Period**	500,712	519,312	528,984
(E)	**Equivalent Availability (%)**	98.76	75.33	0.00
(F)	**Output Factor (%)**	60.82	48.55	0.00
(G)	**Capacity Factor (%)**	17.33	20.80	0.00

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Base Load Power Plant Performance Review Plan

June 2016 - May 2017
Brunswick Nuclear Station

	Unit 1		Unit 2	
(A) MDC (mW)	938		932	
(B) Period Hours	8760		8760	
(C) Net Gen (mWh) and Capacity Factor (%)	8,156,912	99.27	7,137,720	87.43
(D) Net mWh Not Gen due to Full Schedule Outages	70,647	0.86	691,653	8.47
* (E) Net mWh Not Gen due to Partial Scheduled Outages	44,688	0.54	215,018	2.63
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-55,367	-0.67	119,929	1.47
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	8,216,880	100.00%	8,164,320	100.00%
(K) Equivalent Availability (%)		97.89		90.20
(L) Output Factor (%)		100.13		95.52
(M) Heat Rate (BTU/NkWh)		10,415		10,815

*** Estimate**
FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

June 2016 - May 2017
Harris Nuclear Station

	Unit 1	
(A) MDC (mW)	928	
(B) Period Hours	8760	
(C) Net Gen (mWh) and Capacity Factor (%)	7,496,470	92.22
(D) Net mWh Not Gen due to Full Schedule Outages	534,528	6.58
* (E) Net mWh Not Gen due to Partial Scheduled Outages	50,574	0.62
(F) Net mWh Not Gen due to Full Forced Outages	229,432	2.82
* (G) Net mWh Not Gen due to Partial Forced Outages	-181,724	-2.24
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	8,129,280	100.00%
(K) Equivalent Availability (%)		90.25
(L) Output Factor (%)		101.78
(M) Heat Rate (BTU/NkWh)		10,472

*** Estimate**
FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

June 2016 - May 2017
Robinson Nuclear Station

	Unit 2	
(A) MDC (mW)	741	
(B) Period Hours	8760	
(C) Net Gen (mWh) and Capacity Factor (%)	5,579,768	85.96
(D) Net mWh Not Gen due to Full Schedule Outages	904,402	13.93
* (E) Net mWh Not Gen due to Partial Scheduled Outages	1,240	0.02
(F) Net mWh Not Gen due to Full Forced Outages	97,281	1.50
* (G) Net mWh Not Gen due to Partial Forced Outages	-91,531	-1.41
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	6,491,160	100.00%
(K) Equivalent Availability (%)		84.15
(L) Output Factor (%)		101.64
(M) Heat Rate (BTU/NkWh)		10,539

*** Estimate**
FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant
Performance Review Plan
June, 2016 through May, 2017

Lee Energy Complex

	Unit 1A	Unit 1B	Unit 1C	Unit ST1	Block Total
(A) MDC (mW)	204	203	205	379	990
(B) Period Hrs	8,760	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,281,862	1,287,348	1,293,998	2,383,942	6,247,150
(D) Capacity Factor (%)	71.83	72.49	72.21	71.88	72.07
(E) Net mWh Not Generated due to Full Scheduled Outages	199,301	202,412	187,783	208,770	798,266
(F) Scheduled Outages: percent of Period Hrs	11.17	11.40	10.48	6.30	9.21
(G) Net mWh Not Generated due to Partial Scheduled Outages	74,529	60,795	73,668	128,526	337,518
(H) Scheduled Derates: percent of Period Hrs	4.18	3.42	4.11	3.88	3.89
(I) Net mWh Not Generated due to Full Forced Outages	27,525	317	11,361	259,811	299,013
(J) Forced Outages: percent of Period Hrs	1.54	0.02	0.63	7.83	3.45
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	32,432	32,432
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.98	0.37
(M) Net mWh Not Generated due to Economic Dispatch	201,350	224,937	225,103	302,887	954,277
(N) Economic Dispatch: percent of Period Hrs	11.28	12.67	12.56	9.13	11.01
(O) Net mWh Possible in Period	1,784,568	1,775,808	1,791,912	3,316,368	8,668,656
(P) Equivalent Availability (%)	82.52	86.27	85.82	81.02	83.07
(Q) Output Factor (%)	83.63	86.20	85.48	83.71	84.56
(R) Heat Rate (BTU/NkWh)	9,501	9,508	9,427	3,752	7,293

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

Duke Energy Progress
Base Load Power Plant
Performance Review Plan
June, 2016 through May, 2017

Richmond County Station

	Unit 7	Unit 8	Unit ST4	Block Total
(A) MDC (mW)	177	176	171	523
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	982,151	958,631	1,117,287	3,058,069
(D) Capacity Factor (%)	63.40	62.32	74.67	66.72
(E) Net mWh Not Generated due to Full Scheduled Outages	386,299	386,112	385,399	1,157,810
(F) Scheduled Outages: percent of Period Hrs	24.94	25.10	25.76	25.26
(G) Net mWh Not Generated due to Partial Scheduled Outages	45,513	45,339	8,053	98,904
(H) Scheduled Derates: percent of Period Hrs	2.94	2.95	0.54	2.16
(I) Net mWh Not Generated due to Full Forced Outages	4,438	12,671	0	17,109
(J) Forced Outages: percent of Period Hrs	0.29	0.82	0.00	0.37
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	8,632	8,632
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.58	0.19
(M) Net mWh Not Generated due to Economic Dispatch	130,752	135,383	0	243,044
(N) Economic Dispatch: percent of Period Hrs	8.44	8.80	0.00	5.30
(O) Net mWh Possible in Period	1,549,152	1,538,136	1,496,280	4,583,568
(P) Equivalent Availability (%)	71.43	70.71	72.94	72.02
(Q) Output Factor (%)	85.10	84.95	100.76	90.17
(R) Heat Rate (BTU/NkWh)	11,472	11,341	0	7,240

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

Duke Energy Progress
Base Load Power Plant
Performance Review Plan
June, 2016 through May, 2017

Richmond County Station

	Unit 9	Unit 10	Unit ST5	Block Total
(A) MDC (mW)	199	199	249	647
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,349,709	1,370,246	1,821,968	4,541,923
(D) Capacity Factor (%)	77.46	78.64	83.70	80.22
(E) Net mWh Not Generated due to Full Scheduled Outages	196,305	194,204	224,104	614,612
(F) Scheduled Outages: percent of Period Hrs	11.27	11.15	10.29	10.86
(G) Net mWh Not Generated due to Partial Scheduled Outages	50,158	50,009	22,233	122,400
(H) Scheduled Derates: percent of Period Hrs	2.88	2.87	1.02	2.16
(I) Net mWh Not Generated due to Full Forced Outages	8,727	1,616	6,855	17,199
(J) Forced Outages: percent of Period Hrs	0.50	0.09	0.31	0.30
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	137,549	126,373	101,734	365,656
(N) Economic Dispatch: percent of Period Hrs	7.89	7.25	4.67	6.46
(O) Net mWh Possible in Period	1,742,448	1,742,448	2,176,894	5,661,790
(P) Equivalent Availability (%)	85.26	85.72	88.39	86.68
(Q) Output Factor (%)	88.73	88.95	94.15	90.89
(R) Heat Rate (BTU/NkWh)	11,473	11,368	0	6,839

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

Duke Energy Progress
Base Load Power Plant
Performance Review Plan
June, 2016 through May, 2017

Sutton Energy Complex

	Unit 1A	Unit 1B	Unit ST1	Block Total
(A) MDC (mW)	206	206	266	677
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,393,763	1,422,061	1,729,208	4,545,032
(D) Capacity Factor (%)	77.34	78.91	74.28	76.62
(E) Net mWh Not Generated due to Full Scheduled Outages	98,850	81,163	126,095	306,108
(F) Scheduled Outages: percent of Period Hrs	5.49	4.50	5.42	5.16
(G) Net mWh Not Generated due to Partial Scheduled Outages	71,614	69,666	32,720	174,001
(H) Scheduled Derates: percent of Period Hrs	3.97	3.87	1.41	2.93
(I) Net mWh Not Generated due to Full Forced Outages	667	2,899	2,474	6,040
(J) Forced Outages: percent of Period Hrs	0.04	0.16	0.11	0.10
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	2,883	2,883
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.12	0.05
(M) Net mWh Not Generated due to Economic Dispatch	237,193	226,298	434,523	898,015
(N) Economic Dispatch: percent of Period Hrs	13.16	12.56	18.67	15.14
(O) Net mWh Possible in Period	1,802,088	1,802,088	2,327,904	5,932,080
(P) Equivalent Availability (%)	91.25	92.19	92.98	91.76
(Q) Output Factor (%)	84.43	84.98	78.91	82.41
(R) Heat Rate (BTU/NkWh)	11,441	11,338	0	7,056

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

Duke Energy Progress
Intermediate Power Plant
Performance Review Plan
June, 2016 through May, 2017

Mayo Station

Units	Unit 1
(A) MDC (mW)	738
(B) Period Hrs	8,760
(C) Net Generation (mWh)	1,964,433
(D) Net mWh Possible in Period	6,465,192
(E) Equivalent Availability (%)	86.15
(F) Output Factor (%)	53.37
(G) Capacity Factor (%)	30.38

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Intermediate Power Plant
Performance Review Plan
June, 2016 through May, 2017

Roxboro Station

Units	Unit 2	Unit 3	Unit 4
(A) MDC (mW)	672	695	706
(B) Period Hrs	8,760	8,760	8,760
(C) Net Generation (mWh)	2,305,918	2,328,836	1,920,919
(D) Net mWh Possible in Period	5,888,136	6,088,776	6,180,624
(E) Equivalent Availability (%)	95.91	90.68	79.42
(F) Output Factor (%)	73.41	64.12	70.34
(G) Capacity Factor (%)	39.16	38.25	31.08

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Outages for 100 mW or Larger Units
May, 2017

Unit Name	Capacity Rating (mW)	Full Outage Hours		
		Scheduled	Unscheduled	Total
Brunswick 1	938	0.00	0.00	0.00
Brunswick 2	932	0.00	0.00	0.00
Harris 1	928	0.00	0.00	0.00
Robinson 2	741	0.00	0.00	0.00

Duke Energy Progress
Outages for 100 mW or Larger Units
May 2017

Unit Name	Capacity Rating (mW)	Full Outage Hours		Total Outage Hours
		Scheduled	Unscheduled	
Asheville Steam 1	192	537.00	207.00	744.00
Asheville Steam 2	192	0.00	0.00	0.00
Asheville CT 3	185	11.15	0.00	11.15
Asheville CT 4	185	0.00	0.00	0.00
Darlington CT 12	133	80.00	3.40	83.40
Darlington CT 13	133	80.00	0.00	80.00
Lee Energy Complex CC 1A	223	2.85	0.00	2.85
Lee Energy Complex CC 1B	222	306.37	0.00	306.37
Lee Energy Complex CC 1C	223	4.77	0.00	4.77
Lee Energy Complex CC ST1	379	6.58	0.00	6.58
Mayo Steam 1	746	138.00	0.00	138.00
Richmond County CC 1	183	11.53	0.00	11.53
Richmond County CC 2	183	11.55	0.00	11.55
Richmond County CC 3	185	0.00	0.00	0.00
Richmond County CC 4	186	0.00	0.00	0.00
Richmond County CC 6	179	0.00	0.00	0.00
Richmond County CC 7	189	0.00	0.00	0.00
Richmond County CC 8	189	13.77	10.18	23.95
Richmond County CC ST4	175	0.00	0.00	0.00
Richmond County CC 9	214	11.30	23.63	34.93
Richmond County CC 10	214	22.50	3.45	25.95
Richmond County CC ST5	248	14.12	0.00	14.12

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Outages for 100 mW or Larger Units
May 2017

Unit Name	Capacity Rating (mW)	Full Outage Hours		Total Outage Hours
		Scheduled	Unscheduled	
Roxboro Steam 1	380	0.00	30.95	30.95
Roxboro Steam 2	673	0.00	0.00	0.00
Roxboro Steam 3	698	161.00	0.00	161.00
Roxboro Steam 4	711	288.00	456.00	744.00
Sutton Energy Complex CC 1A	225	170.45	2.97	173.42
Sutton Energy Complex CC 1B	225	185.38	0.00	185.38
Sutton Energy Complex CC ST1	267	294.97	0.00	294.97
Wayne County CT 10	192	0.00	0.00	0.00
Wayne County CT 11	192	0.00	0.00	0.00
Wayne County CT 12	193	0.00	0.00	0.00
Wayne County CT 13	185	0.00	0.00	0.00
Wayne County CT 14	197	107.00	0.00	107.00

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.